Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the present application:

Listing of Claims

1) (Currently Amended) A process for the concentration or purification of nucleic acids and proteins comprising the steps of providing a device having one or more wells, each well containing an ultrafiltration membrane having an upstream and a downstream side, said membrane having a molecular cutoff between 100 D and 500kD, adding a volume of liquid of less than about 1000 microliters, said volume containing a biological material selected from the group consisting of nucleic acids, proteins and blends thereof and one or more impurities, ~~and~~ subjecting the volume to a constant pressure differential to remove essentially all the impurities and reach ~~until~~ a desired concentration of the biological material on the upstream side of the membrane ~~is reached~~ and recovering the biological material from the upstream side.
2) (Previously presented) A process for the concentration or purification of nucleic acids and proteins comprising the steps of providing a device having one or more wells, each well containing an ultrafiltration membrane having an upstream and a downstream side, said membrane having a molecular cutoff between 100 D and 300kD, adding a volume of liquid containing a biological material selected from the group consisting of nucleic acids, proteins and blends thereof and subjecting the material to centrifugation until at least about 350 microliters or less of the initial volume remains, then subjecting the remaining volume to a constant pressure differential until a desired concentration of the biological material on the upstream side is reached.
3) (Original) The process of claim 1 wherein the constant pressure differential is a vacuum from about 169 millibars to about 914millibars
4) (Original)The process of claim 2 wherein the constant pressure differential is a vacuum from about 169 millibars to about 914millibars
5) (Original)The process of claim 1 wherein the constant pressure differential is a positive pressure from about 5 to about 80 psi.

6) (Original)The process of claim 2 wherein the constant pressure differential is a positive pressure from about 5 to about 80 psi.

7) (Original) The process of claim 1 wherein the device is a single well device.

8) (Original) The process of claim 1 wherein the device is a multiple well device.

9) (Original) The process of claim 1 wherein the device is a 96 well plate.

10) (Previously presented) The process of claim 1 wherein the number of wells in the device is from about 6 to about 1536.

11) (Original) The process of claim 2 wherein the device is a single well device.

12) (Original) The process of claim 2 wherein the device is a multiple well device.

13) (Original) The process of claim 2 wherein the device is a 96 well plate.

14) (Previously presented) The process of claim 2 wherein the number of wells in the device is from about 6 to about 1536.

15) (Previously presented) The process of claim 1 wherein the membrane has a molecular cutoff of from about 100 Daltons to about 300 kDaltons.

16) (Previously presented) The process of claim 2 wherein the cutoff is from about 3 kDaltons to about 300 kDaltons.

17) (Original) The process of claim 1 wherein the membrane is made of a material selected from the group consisting of polyamides, polysulphones, polyethersulphones polyarylsulphones, cellulosics, regenerated celluloses, polyolefins such as polyethylene and polypropylene and polyvinylidene fluoride.

18) (Original) The process of claim 2 wherein the membrane is made of a material selected from the group consisting of polyamides, polysulphones, polyethersulphones polyarylsulphones, cellulosics, regenerated celluloses, polyolefins such as polyethylene and polypropylene and polyvinylidene fluoride.

19) (Original) The process of claim 1 wherein the starting volume of liquid is less than about 500 microliters.

20) (Original) The process of claim 1 wherein the starting volume of liquid is less than 350 microliters.

21) (Canceled)

22) (Original) The process of claim 2 wherein the process is free of a diafiltration step.

23) (Currently Amended) A process for ultrafiltration comprising the steps of: providing a device containing an ultrafiltration membrane, said membrane having an upstream and downstream sides, said device having ~~a~~ one or more reservoirs adjacent the upstream side of the membrane for holding a volume of liquid to be filtered, adding a volume of liquid of less than about 500 microliters into the one or more reservoirs of the device, wherein the liquid contains a biological material containing one or more impurities, and applying a constant pressure differential force to the liquid at a force and time sufficient to cause substantially all of the liquid and essentially all the impurities to pass from the reservoir through the membrane and recovering the biological material from the upstream side of the membrane, wherein the process is free of a diafiltration step.

24) (Currently Amended) A process for the concentration of nucleic acids and proteins comprising the steps of providing a device having one or more wells, each well containing an ultrafiltration membrane having an upstream and a downstream side, said membrane having a molecular cutoff between 100 D and 500kD, adding a volume of liquid of about 500 microliters to one or more wells, wherein the liquid contains a biological material selected from the group consisting of nucleic acids, proteins and blends thereof and one or more impurities and subjecting the material to a constant pressure differential at a force and time sufficient to cause substantially all of the liquid and essentially all the impurities to pass from the well through the membrane until a desired concentration of the biological material on the upstream side is reached, ~~and~~ recovering the material from the upstream side and wherein the process has a reduced need for one or more diafiltration steps.

25) (Currently Amended) A process for the concentration of nucleic acids and proteins comprising the steps of providing a device having one or more wells, each well containing an ultrafiltration membrane having an upstream and a downstream side, said membrane having a molecular cutoff between 100 D and 500kD, adding a volume of liquid of less than about 500 microliters, wherein said liquid contains a biological material selected from the group consisting of nucleic acids, proteins and blends thereof and one or more impurities and subjecting the volume to a constant pressure differential selected from the group consisting of a vacuum from about 169 millibars to about 914millibars and a positive pressure from about 5 to about 80 psi for a time sufficient to cause the liquid including essentially all the impurities to pass from the well through the membrane ~~until a desired concentration of the biological material on the upstream side is reached~~ and recovering the biological material from the upstream side of the membrane and wherein the process is free of a diafiltration step.

26) (Previously Presented) The process of claim 25 wherein the volume added is less than about 350 microliters.

27) (Currently Amended) A process for ultrafiltration comprising the steps of: providing a device containing an ultrafiltration membrane, said membrane having an upstream and downstream sides, said device having a reservoir adjacent the upstream side of the membrane for holding a

volume of liquid to be filtered, placing a liquid in a volume of less than about 1000 microliters into the reservoir of the device, wherein the liquid contains proteins, and applying a constant pressure differential force to the liquid at a force and time sufficient to cause substantially all of the liquid to pass from the reservoir through the membrane, ~~and~~ recovering the proteins from the upstream side of the membranes wherein the process is free of a diafiltration step.

28) (Previously Presented) The process of claim 27 wherein the volume of liquid to be filtered is about 500 microliters.

29) (Canceled)

30) (Previously presented) The process of claim 27 wherein the constant pressure differential is a vacuum from about 169 millibars to about 914 millibars.

31)) (Previously Presented) The process of claim 27 wherein the device is a 96 well plate.

32) (New) A process for the concentration of nucleic acids and proteins comprising the steps of providing a device having one well, the well containing an ultrafiltration membrane having an upstream and a downstream side, said membrane having a molecular cutoff between 100 D and 500kD, adding a volume of liquid of less than about 500 microliters, wherein said liquid contains a biological material selected from the group consisting of nucleic acids, proteins and blends thereof and subjecting the volume to a constant pressure differential for a time sufficient to cause the liquid to pass from the well through the membrane and recovering the biological material from the upstream side of the membrane.

33) (New) A process for the concentration of nucleic acids and proteins comprising the steps of providing a single well device designed for centrifugal filtration, the well containing an ultrafiltration membrane having an upstream and a downstream side, said membrane having a molecular cutoff between 100 D and 500kD, adding a volume of liquid of less than about 500 microliters to the upstream side of the membrane, wherein said liquid contains a biological material selected from the group consisting of nucleic acids, proteins and blends thereof and subjecting the volume to a constant pressure differential for a time sufficient to cause the liquid to pass from the well through the membrane and recovering the biological material from the upstream side of the membrane.

34) (New) In a process for the concentration or purification of nucleic acids and proteins including the steps of providing a device having one or more wells, each well containing an ultrafiltration membrane having an upstream and a downstream side, said membrane having a molecular cutoff between 100 D and 500kD, adding a volume of liquid of less than about 1000 microliters, said volume containing a biological material selected from the group consisting of nucleic acids, proteins and blends thereof and one or more impurities, filtering the fluid through the membrane and conducting several diafiltration steps in order to remove impurities, the

improvement comprising subjecting the volume to a constant pressure differential to remove essentially all the impurities and reducing the number of diafiltration steps.